Last Updated: November 2003

Revere Smelting and Refining Corporation of NJ

EPA ID Number: NYD030485288

Other (Former) Names of Site

Eco-Bat NY, LLC

Site Description

Revere Smelting and Refining Corporation of NJ (Revere) operates a secondary lead smelter at 65 Ballard Road in Middletown, New York. Revere currently is a wholly-owned subsidiary of Eco-Bat NY, LLC. The previous owner was Revere Smelting and Refining Corporation. The facility is located in a rural area of southeastern New York and occupies a 55-acre parcel of land, approximately one third of which is used for plant operations. The remainder consists mainly of undeveloped property containing overgrown fields, mature woodlands, wetlands and a small pond.

Used batteries, which are a Resource Conservation and Recovery Act (RCRA) hazardous waste, are transported to the facility for storage and dismantling. Dismembered battery materials (still RCRA hazardous waste) along with other waste material containing lead from battery manufacturing, are stored in piles onsite in a RCRA-permitted containment building. All lead-bearing materials are sent to the onsite high temperature smelter for refining.

During the late 1970's and early 1980's, large quantities of fill material containing lead slag, battery parts and other waste was buried at this site. Part of this lead-contaminated fill area was first paved over with concrete and served as a storage area for used batteries, wastewater treatment units, and piles of secondary waste materials from the demolition of batteries. During battery dismemberment, acid leaked into the subsurface fill and surrounding soil, acidifying the underlying groundwater. The acid also served to leach lead from the fill into the groundwater.

Subsequently, a containment building was constructed over this concrete area, to house the piles of secondary waste materials and used batteries. The surface layer of soil extending beyond the fill areas was also contaminated with windblown lead particles from the open storage yard, and from smelter stack emissions. Contaminated fill material can be found to a depth of 20 feet below grade. Surficial contamination extends from a few inches to two feet below grade.

Site Responsibility and Legal Instruments

The New York State 6NYCRR Part 373 Hazardous Waste Management Permit addresses:

- the storage and management of hazardous waste in a container storage area and in a containment building; and
- the implementation of the final Corrective Measures.

The latter was addressed in a major permit modification and Statement of Basis. There have also been three Orders on Consent with New York State Department of Environmental Conservation (NYSDEC), in 1997, 1999, and 2000**.** The first two Orders were between Revere Smelting and Refining Corporation and NYSDEC Division of Solid and Hazardous Materials, and the third Order was with NYSDEC's Division of Environmental Remediation (DER). The current soil and groundwater investigation activities at Revere are being conducted by DER under the year 2000 Order.

Permit Status

6NYCRR Part 373 Hazardous Waste Permit was issued in July 28, 1995. The permit was modified on March 28, 1997 to address the implementation of final Corrective Measures. The permit expires on July 28, 2005.

Potential Threats and Contaminants

Lead was the primary contaminant detected in the soils, fill material, and groundwater during the Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) of December 1993. Other contaminants are cadmium, antimony, and arsenic, but these contaminants are found at lower levels. Concentrations of lead greater than 500 parts per million (ppm), and up to the 200,000 ppm range, were reported in three distinct areas at the site:

- in the inaccessible soils beneath the containment building;
- in the subsurface fill located on the east, west, and south sides of the main plant; and
- in some surficial soils (generally six inches to two feet) scattered across the Revere property.

The highest total lead concentrations have consistently been encountered in the deeper fill material, which exhibit a hazardous waste toxicity characteristic for lead. Groundwater samples collected in the fill area show the most significant heavy metals contamination. Also, the pH of some groundwater at the site is as low as 3 (very acidic).

Most areas of contamination are not accessible to either workers or trespassers, as they are either underneath the buildings, covered with asphalt, or protected by fencing. One

exception is the area where the Corrective Measures excavation took place and a open pit remains unsecured. At this location, both workers and trespassers have the potential to come in contact with highly contaminated soil, fill material, and groundwater.

The potential for off-site contamination of the soil or groundwater has not undergone a thorough investigation at this time. Groundwater monitoring continues at the site, but the installation of additional wells, necessary in order to investigate potential off-site migration of contaminated groundwater, has not yet been implemented.

Any further sampling and remediation of the contaminated soils, fill, or groundwater will be implemented under an appropriate health and safety plan to protect construction personnel and facility workers. Indoor air monitoring is not carried out routinely within the buildings located onsite, however workers are required to use particulate filter masks. Such monitoring is conducted for off-site air emissions from the stack. During field investigations and all corrective action work, Revere is required to follow a Health and Safety plan that includes monitoring the air in the vicinity of the workers for lead dust.

Cleanup Approach and Progress

Revere is located in Orange County and is on a public water supply. Therefore, contaminated groundwater is not used for any purpose on or off-site. However, the State considers all its groundwater to be a potential source of potable water, and that it should be remediated to its Groundwater Quality Protection Standards. Groundwater elevations measured in the seventeen wells at the site indicate that the shallow groundwater consistently flows south-southeast.

Corrective Measures called for the soils removal and the construction of a slurry wall around the main plant to reduce the amount of groundwater flowing into the excavation site. The purpose of the slurry wall was to divert groundwater that would otherwise contact the highly leachable lead-contaminated soil under the plant building which is adjacent to the excavation area.

Revere cited financial difficulties and ceased implementation of Corrective Measures without New York State Department of Environmental Conservation (NYSDEC) approval in the summer of 1999. Before construction stopped, soils remediation was progressing east and west of the plant, but had not yet begun to the south. An estimated 100,000 cubic yards of contaminated soil had been planned to be stabilized before removing it from the site, but to date, less than half of this soil has been treated and removed.

At this time, only the western and northern sides of the slurry wall have been constructed, and data indicates that the incomplete wall is not controlling the flow of groundwater. The continued generation of contaminated groundwater into the area of excavation could be slowed if the slurry wall around the plant is completed. It is anticipated that the Remedial Investigation/ Feasibility Study (RI/FS) which is being prepared by the New York State Department of Environmental Conservation's Division of Environmental Remediation will

indicate which on-site soil and groundwater remediation strategies would be appropriate for this site.

Site Repository

Copies of supporting technical documents and correspondence cited in this site fact sheet are available for public review at:

NYSDEC
Division of Solid and Hazardous Materials
Bureau of Solid Waste and Corrective Action
625 Broadway
Albany, NY 12233-7255